

Amendments to the Specification:

Please replace paragraph beginning on page 8, line 4, with the following amended paragraph:

--Figure 1 shows two mechanisms for Interaction-dependent Enzyme Activation (IdEA). Figure 1A. Ligand-dependent circular permutations of an enzyme are formed by linking the native termini into an " α - ω " domain, and severing the polypeptide chain in a solvent exposed loop the " μ " domain to generate new carboxy and amino termini μ 1 and μ 2 subdomains. The circularly permuted enzyme can μ 1 and μ 2-refold to form an active enzyme when and only when the new termini they are brought together by an interaction of interaction of heterologous domains fused to the new their-termini. The interaction can be direct or mediated by a second molecule (the ligand). The ligand-binding domains can include but are not limited to single-chain antibody fragments (scFv) and constrained peptides scaffolded on a carrier protein (csp). Versatile hydrolytic enzymes such as β -lactamases can be used to confer multiple selectable phenotypes including antibiotic resistance, color, death (prodrug, for inhibitor screens), and auxotrophic growth. Figure 1B. Interaction-dependent fragment complementation requires enzyme α and ω fragments which can reform to form active enzyme when and only when they are brought together by an interaction of heterologous domains fused to their termini.--